LENNOX®

HEARTH PRODUCTS

CARE AND OPERATION INSTRUCTIONS

Montebello See-Through
Direct Vent Gas Fireplaces

DAVE LENNOX signature™ COLLECTION

P/N 506025-05 Rev. C 05/2011
This manual is one of a set of two supporting this product.
Refer to P/N 506023-12 for Installation Instructions.
Ce manuel est disponible en francais, simplement en faire la demande. Numéro de la pièce 506223-12.

MODELS

LSM40ST-N
LSM40ST-P

WHAT'S INSIDE

Table of Contents 2
Safety and Your Fireplace 2
FREE Safety Guard Offer (Protects Against Burns) 2
Important Safety Information 4
Attaching the Safety-in-Operation Warnings 5
[EN FRANÇAIS] **L'information de sûreté importante** 3–4
Apposition des mises en garde relatives à la sécurité d'utilisation 5
[EN ESPAÑOL] **Información importante de seguridad** 3–4
Colocación de advertencias de seguridad en operación 5

C ETL LISTED US
Intertek

Intertek Report No. 100326523PRT-001

Canada ENERGUIDE
Look for the **EnerGuide** Gas Fireplace Energy Efficiency Rating in this manual.
Based on CSA P.4.1-02

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.
INSTALLATEUR : Laissez cette notice avec l'appareil.
CONSOMMATEUR : Conservez cette notice pour consultation ultérieure.

⚠ WARNING / AVERTISSEMENT / AVISO

- HOT GLASS WILL CAUSE BURNS.
- DO NOT TOUCH GLASS UNTIL COOLED.
- NEVER ALLOW CHILDREN TO TOUCH GLASS.

- UNE SURFACE VITRÉE CHAUDE PEUT CAUSER DES BRÛLURES.
- LAISSER REFROIDIR LA SURFACE VITRÉE AVANT D'Y TOUCHER.
- NE PERMETTEZ JAMAIS À UN ENFANT DE TOUCHER LA SURFACE VITRÉE.

- EL VIDRIO CALIENTE CAUSARÁ QUEMADURAS.
- USTED DEBE NUNCA TOCAR EL VIDRIO CALIENTE.
- LOS NIÑOS DEBEN NUNCA TOCAR EL VIDRIO.

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result, causing property damage, personal injury, or death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS:
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

AVERTISSEMENT : Assurez-vous de bien suivre les instructions données dans cette notice pour réduire au minimum le risque d'incindie ou d'explosion ou pour éviter tout dommage matériel, toute blessure ou la mort.

- Ne pas entreposer ni utilizer d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.
- QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ :
  - Ne pas tenter d'allumer d'appareil.
  - Ne touchez à aucan interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous trouvez.
  - Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
  - Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incindies.
- L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.

Thank you for your purchase. We appreciate your business!

Please carefully read and follow all instructions in this manual. ***Pay special attention to all warnings and safety information.***

Following these safety, care, and operation instructions will help ensure many years of dependable and enjoyable service from your fireplace.

• FREE SAFETY GUARD OFFER •

*The Lennox® **SAFETY GUARD** protects against severe burns and injuries by preventing direct contact with the front glass surface of your fireplace.*

To receive your FREE **SAFETY GUARD**, call **1-800-786-7976** or visit **www.lennox.com** (Lennox Hearth Products / Owner Resources)

TABLE OF CONTENTS

Safety and Your Fireplace **2**
Important Safety Information **4**
Attaching the Safety-in-Operation Warnings **5**
Appliance Installation, Service, and Maintenance Notices 6
Appliance Operation Notices 6
Warranty Information 6
General Information 7
- Inputs and Efficiencies 7
- Gas Pressure Requirements 7
- Orifice Sizes 7
- Burn-In Period 7

Operation and Care of Your Appliance 8
- Gas Controls / Control Compartment Access 8
- Remote Control System 9

Maintenance 11
Removal/Installation of Glass Doors, Mesh Pull Screens, and Modesty Panel 11
Placement of Volcanic Stone, Glowing Embers, and Logs 13
Burner Adjustments 16
- Flame Appearance and Sooting 16
- Burner Air Shutter Adjustment Guidelines 16
- Burner Air Shutter Adjustment Procedure 17

Electronic Appliance Checkout 17
Ordering Replacement Parts 18
Product Reference Information 18
Wiring Diagram 18
Accessory Components 19
Operating (Lighting) Instructions 21
Maintenance Schedule 23
Troubleshooting Guide 24
Replacement Parts List 25

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

Safety and Your Fireplace

All parts of your Lennox Hearth Products fireplace get EXTREMELY HOT!

☐ To prevent severe burns and injuries, install a screen or physical barrier to prevent direct contact with the glass.

To order a FREE Lennox® SAFETY GUARD for your fireplace, see details at left.

☐ Follow the safety instructions below and be sure everyone in your household understands this burn hazard:

- **The surfaces on your fireplace get EXTREMELY HOT!**
- **The glass on the front of the fireplace reaches EXTREMELY HIGH temperatures and can cause severe burns if touched.**

- **Keep children away from an operating fireplace. Closely supervise children in any room where a fireplace is operating to prevent contact with glass.**
- **Keep clothing, furniture, gasoline, and other flammable liquids away from the fireplace.**

- **Even after the gas is turned off, fireplace surfaces remain extremely hot.**

☐ Be sure to attach the enclosed **Safety-in-Operation Warnings** where you turn on your fireplace, to help remind everyone of the dangers associated with high temperatures (see **Page 5**).

☐ Read **Important Safety Information** on **Page 4**.

[FRENCH]

La sécurité et votre foyer

Toutes les parties de votre foyer Lennox Hearth Products deviennent EXTRÊMEMENT CHAUDES !

☐ Afin d'éviter de vous brûler gravement ou de vous blesser, installez une grille ou une barrière physique pour empêcher tout contact direct avec la vitre.

Pour commander un PANNEAU DE PROTECTION Lennox® GRATUIT pour votre foyer, consultez les détails dans la partie gauche.

☐ Suivez les instructions de sécurité ci-dessous et veillez à ce que tous les membres de votre famille soient conscients du danger de brûlure encouru :

- **Les surfaces de votre foyer deviennent EXTRÊMEMENT CHAUDES !**
- **La vitre située à l'avant du foyer atteint des températures EXTRÊMEMENT ÉLEVÉES et peut causer de graves blessures en cas de contact.**
- **Tenez les enfants à l'écart du foyer lorsqu'il fonctionne. Surveillez attentivement les enfants dans les pièces où un foyer est utilisé afin d'éviter qu'ils ne soient en contact avec la vitre.**

- **Tenez tous les vêtements, les meubles, l'essence et tout autre liquide inflammable à l'écart du foyer.**
- **Même après fermeture du gaz, les surfaces du foyer restent extrêmement chaudes.**

☐ Veillez à coller les **Étiquettes de mise en garde relatives à la sécurité d'utilisation** à l'endroit où vous utilisez le foyer, pour rappeler à tous les utilisateurs les dangers liés aux températures élevées **(voir Page 5).**

☐ Lisez la section **Informations importantes relatives à la sécurité, Page 4.**

[SPANISH]

Seguridad y su chimenea

¡Todas las partes de la chimenea Lennox Hearth Products se ponen MUY CALIENTES!

☐ Instale una malla o barrera física para evitar el contacto directo con el vidrio y prevenir las quemaduras y lesiones graves.

Ver los detalles a la izquierda para ordenar un Lennox® SAFETY GUARD GRATIS para su chimenea.

☐ Siga las instrucciones de seguridad a continuación y asegúrese de que todos en su hogar sepan acerca de este peligro de quemadura:

- **¡Las superficies de la chimenea se ponen MUY CALIENTES!**
- **El vidrio delante de la chimenea alcanza temperaturas EXTREMADAMENTE ALTAS y puede causar quemaduras graves si se toca.**
- **Mantenga a los niños alejados de la chimenea en funcionamiento. Supervise en forma cercana a los niños en cualquier cuarto donde haya una chimenea funcionando para impedir el contacto con el vidrio.**
- **Mantenga la ropa, mobiliario, gasolina y otros líquidos inflamables alejados de la chimenea.**
- **Aún después de haber apagado el gas, las superficies de la chimenea permanecen extremadamente calientes.**

☐ Asegúrese de colocar las **Etiquetas de advertencia de seguridad de operación** en el lugar donde enciende la chimenea, para que todos recuerden los peligros asociados con las altas temperaturas **(ver la página 5).**

☐ Lea la **Información importante** de seguridad en la **página 4.**

Important Safety Information

1. **WARNING: Do not operate appliance with the glass front removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person .**
2. **Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.**
3. **Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.**
4. **Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition.**
5. **Clothing or other flammable material should not be placed on or near the appliance.**
6. **Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children, and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children, and other at-risk individuals out of the room and away from hot surfaces.**
7. **Any safety screen or guard removed for servicing an appliance must be replaced prior to operating the appliance.**
8. **Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, et cetera. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean. See maintenance instructions on Page 11.**

L'information de sûreté importante

1. **AVERTISSEMENT. Ne pas utiliser l'appareil si le panneau frontal en verre n'est pas en place, est craqué ou brisé. Confiez le remplacement du panneau à un technicien agréé**
2. **Ne pas utiliser cet appareil s'il a été plongé, même partiellement, dans l'eau. Appeler un technicien qualifié pour inspecter l'appareil et remplacer toute partie du système de commande et toute commande qui a été plongée dans l'eau.**
3. **En raison des températures élevées, l'appareil devrait être installé dans un endroit où il y a peu de circulation et loin du mobilier et des tentures.**
4. **Les enfants et les adultes devraient être informés des dangers que posent les températures de surface élevées et se tenir à distance afin d'éviter des brûlures ou que leurs vêtements ne s'enflamment.**
5. **On ne devrait pas placer de vêtements ni d'autres matières inflammables sur l'appareil ni à proximité.**
6. **Les jeunes enfants devraient être surveillés étroitement lorsqu'ils se trouvent dans la même pièce que l'appareil. Les tout petits, les jeunes enfants ou les adultes peuvent subir des brûlures s'ils viennent en contact avec la surface chaude. Il est recommandé d'installer une barrière physique si des personnes à risques habitent la maison. Pour empêcher l'accès à un foyer ou à un poêle, installez une barrière de sécurité ; cette mesure empêchera les tout petits, les jeunes enfants et toute autre personne à risque d'avoir accès à la pièce et aux surfaces chaudes.**
7. **Tout écran ou protecteur retiré pour permettre l'entretien de l'appareil doit être remis en place avant de mettre l'appareil en marche.**
8. **L'installation et la réparation devrait être confiées à un technicien qualifié. L'appareil devrait faire l'objet d'une inspection par un technicien professionnel avant d'être utilisé et au moins une fois l'an par la suite. Des nettoyages plus fréquents peuvent être nécessaires si les tapis, la literie, et cetera produisent une quantité importante de poussière. Il est essentiel que les compartiments abritant les commandes, les brûleurs et les conduits de circulation d'air de l'appareil soient tenus propres. Voyez les instructions d'entretien à la Page 11.**

[SPANISH]

Información importante de seguridad

1. **ADVERTENCIA: No opere el artefacto con el frente de vidrio quitado, agrietado o roto. Un técnico de servicio licenciado o capacitado debe reemplazar el vidrio.**
2. **No use este artefacto si alguna de sus partes ha estado bajo agua. Llame de inmediato a un técnico de servicio calificado para que inspeccione el artefacto y reemplace cualquier parte del sistema de control y cualquier control de gas que haya estado bajo agua.**
3. **Debido a las altas temperaturas, el artefacto debe situarse fuera de las áreas de tráfico y lejos del mobiliario y cortinas.**
4. **Se debe alertar a los niños y adultos sobre los peligros de las altas temperaturas en la superficie y que se mantengan alejados para evitar quemaduras o ignición de la ropa.**
5. **No debe colocarse ropa u otros materiales inflamables sobre y cerca del artefacto.**
6. **Se debe supervisar de cerca a los niños cuando estén en el mismo cuarto que el artefacto. Los niños pequeños, los jóvenes y otras personas pueden ser susceptibles a quemaduras por contacto accidental. Se recomienda instalar una barrera física si hay personas en riesgo en la casa. Para restringir el acceso a una chimenea o estufa, instale una puerta de seguridad ajustable para mantener a los niños pequeños, jóvenes y otras personas en riesgo fuera del cuarto y lejos de las superficies calientes.**
7. **Cualquier malla o resguardo de seguridad quitado para dar servicio a un artefacto, debe reinstalarse antes de operar el artefacto.**
8. **Una persona de servicio competente debe realizar la instalación y reparación. Una persona de servicio profesional debe inspeccionar el artefacto antes de usar al menos una vez por año. Se puede requerir limpieza más frecuente debido a la pelusa excesiva del alfombrado, del material de cobijas, etc. Es imprescindible mantener limpios los compartimientos de control, los quemadores y los pasajes de circulación del aire del artefacto. Ver las instrucciones de mantenimiento en la página 11.**

HOMEOWNER'S INSTRUCTIONS: ATTACHING "SAFETY-IN-OPERATION" WARNINGS

ATTACHING SAFETY-IN-OPERATION WARNINGS

Your fireplace has been furnished with safety instruction labels that are to be affixed to the operation and control points of the fireplace. A safety instruction label should be affixed to the receiver wall switch plate where the fireplace is turned on and off *(See **Figure A**)* and the remote control handheld transmitter *(**Figure B**)*. The warnings should already have been put in place when the fireplace initial set-up was completed. If they are not affixed at these spots, locate the multi-lingual adhesive labels provided with these instructions and proceed as follows:

1. Locate the wall receiver that controls the fireplace (verify the switch operates the fireplace by turning it on and off). Clean the wall receiver plate thoroughly to remove any dust and oils. Affix the label to the surface of the plate of the wall receiver that controls the fireplace *(**Figure A**)*. Choose the language primarily spoken in the home.
2. Locate the remote control transmitter and clean it thoroughly to remove any dust and oils. Affix the label to the surface of handheld transmitter *(**Figure B**)*. Choose the language primarily spoken in the home.
3. If you are unable to locate the labels, please call Lennox Hearth Products or your nearest Lennox Hearth Products dealer to receive additional safety instruction labels free of charge.

   Cat. No. H8024 Replacement Label Kit

   LENNOX HEARTH PRODUCTS

   1-800-9-LENNOX

Note: English is red text on clear label. French and Spanish are white text on black label.

APPOSITION DES MISES EN GARDE RELATIVES À LA SÉCURITÉ D'UTILISATION

Votre foyer a été livré avec des étiquettes de sécurité qui doivent être collées à côté des dispositifs de contrôle du foyer. Une étiquette de sécurité devrait être collée sur la plaque du récepteur mural contrôlant l'allumage du foyer *(voir **Figure A**)* et sur le boîtier de la télécommande *(**Figure B**)*. Les mises en garde auraient dû être collées au moment de l'installation initiale du foyer. Si ce n'est pas le cas, prenez les étiquettes adhésives multilingues fournies avec ces instructions et procédez comme suit:

1. Repérez le récepteur mural qui contrôle le foyer (vérifiez que l'interrupteur contrôle le fonctionnement du foyer en le faisant basculer de Marche à Arrêt, et vice-versa). Nettoyez soigneusement la plaque du récepteur mural pour éliminer la poussière et les traces de graisse ou d'huile. Collez l'étiquette sur la surface de la plaque du récepteur mural qui contrôle le foyer *(**Figure A**)*. Choisissez la langue qui est principalement parlée dans la résidence du propriétaire.
2. Repérez la télécommande et nettoyez-la soigneusement pour éliminer la poussière et les traces de graisse ou d'huile. Collez l'étiquette sur le boîtier de la télécommande *(**Figure B**)*. Choisissez la langue qui est principalement parlée dans la résidence du propriétaire.
3. Si vous ne trouvez pas les étiquettes, veuillez appeler Lennox Hearth Products ou votre distributeur Lennox Hearth Products local pour recevoir gratuitement des étiquettes supplémentaires.

   Étiquettes de remplacement, n° cat. H8024

   LENNOX HEARTH PRODUCTS

   1-800-9-LENNOX

Remarque : Le texte anglais est rouge sur un support transparent. Le texte français et espagnol est blanc sur un support noir.

COLOCACIÓN DE ADVERTENCIAS DE SEGURIDAD EN OPERACIÓN

Su chimenea incluye etiquetas de instrucciones de seguridad que deben colocarse en los puntos de operación y control de la chimenea. Se debe colocar una etiqueta de instrucciones de seguridad en la placa del interruptor de pared del receptor desde el cual se enciende y se apaga la chimenea *(ver la **Figura A**)* y en el transmisor de control remoto *(**Figura B**)*. Las advertencias ya deben haberse colocado cuando se completó la instalación inicial de la chimenea. Si no están colocadas en estos lugares, encuentre las etiquetas adhesivas multilingües proporcionadas con estas instrucciones y prosiga de la siguiente manera:

1. Identifique el receptor de pared que controla la chimenea (verifique que el interruptor opera la chimenea encendiéndola y apagándola). Limpie bien la placa del receptor de pared para quitar el polvo y aceite. Pegue la etiqueta en la superficie de la placa del receptor de pared que controla la chimenea *(**Figura A**)*. Seleccione el idioma que más se habla en la casa.
2. Identifique el transmisor de control remoto y límpielo bien para quitar el polvo y aceite. Pegue la etiqueta en la superficie del transmisor *(**Figura B**)*. Seleccione el idioma que más se habla en la casa.
3. Si no puede encontrar las etiquetas, sírvase llamar a Lennox Hearth Products o al distribuidor de Lennox Hearth Products más cercano para recibir etiquetas de instrucciones de seguridad adicionales gratuitas.

   Juego de etiquetas de repuesto - Nº de cat. H8024

   LENNOX HEARTH PRODUCTS

   1-800-9-LENNOX

Nota: La etiqueta en inglés es transparente con texto rojo. Las etiquetas en francés y español son negras con texto blanco.

SAFETY LABEL DIAGRAMS / DIAGRAMAS DE ETIQUETAS DE SEGURIDAD / DIAGRAMMES DES ÉTIQUETTES DE SÉCURITÉ

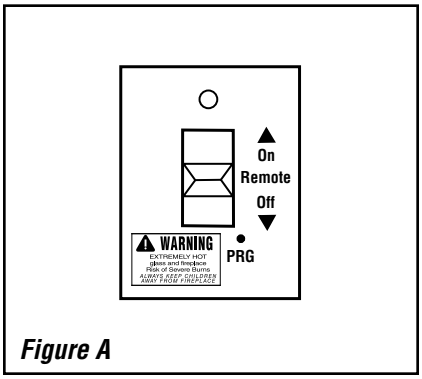


Figure A

Figure B

APPLIANCE INSTALLATION, SERVICE, AND MAINTENANCE NOTICES

IMPORTANT: Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

Only trim kit(s) supplied by the manufacturer shall be used in the installation of this appliance.

Draft relief openings must not be covered or blocked.

These appliances must not be connected to a chimney or flue serving a separate solid fuel burning appliance.

Any change to this appliance and/or its operating controls is dangerous. Improper installation or use of this appliance can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.

CARBON MONOXIDE POISONING: Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Turn off the gas supply to the appliance and have it serviced by a qualified professional, as it may not be operating correctly. Some people are more affected by carbon monoxide than others, including pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

Turn off gas and electrical power to the fireplace and allow it to cool before cleaning or servicing the appliance.

The vent termination is hot while in operation and for a period of time following the use of the fireplace. Young children should be carefully supervised when they are in the same area as a hot termination

APPLIANCE OPERATION NOTICES

Do not operate appliance with the glass front removed, cracked, or broken.

These fireplaces are vented gas appliances. Do not burn wood or other material in these appliances.

This appliance is only for use with the type of gas indicated on rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

These appliances are designed to operate on natural gas or propane gas only. The use of other fuels or combinations of fuels will degrade the performance of this system and may be dangerous.

Provide adequate clearances around air openings and adequate accessibility clearance for service and proper operation. Never obstruct the front openings of the appliance.

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

These fireplaces are designed as supplemental heaters. Therefore, it is advisable to have an alternate primary heat source when installed in a dwelling.

WARRANTY INFORMATION

Your gas appliance is covered by a limited twenty-year warranty. You will find a copy of the warranty accompanying this manual. Please read the warranty to be familiar with its coverage.

Retain this manual. File it with your other documents for future reference.

Failure to comply with the installation and operating instructions provided will result in an improperly installed and operating appliance, voiding its warranty.

Do not attempt to alter or modify the construction of the appliance or its components. Any modification or alteration may void the warranty, certification, and listings of this unit.

GENERAL INFORMATION

The fireplace models covered in this manual are direct-vent, sealed combustion, gas fireplaces designed for residential application. Direct-vent appliances operate with the combustion chamber completely isolated from the indoor environment.

All air for combustion is brought in from the outside, and exhaust gases are vented through the same direct-vent, coaxial (intake/exhaust) vent system.

These appliances are designed to operate on natural or propane gas. The system is switchable between standing and intermittent pilot modes. External electrical power is required to operate these units. If the system operates on line voltage, four (4) "AA" batteries (in receiver) can be used as a backup in case of a power outage.

These models come standard with a remotely modulated gas valve. The included transmitter remotely controls flame appearance and heat output (manual gas valve adjustment is not possible).

These appliances comply with National Safety Standards and are tested and listed by Intertek (Report No. 100326523PRT-001) to ANSI Z21.88 (in Canada, CSA-2.33), and CAN/CGA-2.17-M91 (CSA P4.1) in both USA and Canada, as vented gas fireplace.

The installation must conform to local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54 - latest edition, or the Natural Gas and Propane Installation Code, CAN/CSA-B149.1 - latest edition. The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70 - latest edition, or the Canadian Electrical Code, CSA C22.1 - latest edition.

Inputs and Efficiencies

Appliance BTU inputs are listed in ***Table 1A***. Appliance efficiencies are listed in ***Table 1B***.

INPUTS	
Gas Type (Fireplace Model)	**Inputs (BTU/hr)**
Natural Gas (LSM40ST-N)	**40,000 to 60,000**
Liquid Propane (LSM40ST-P)	**43,500 to 56,000**
Table 1A	

EFFICIENCIES		
Gas Type (Fireplace Model)	**AFUE**	**EnerGuide**
Natural Gas (LSM40ST-N)	**68%**	**67%**
Liquid Propane (LSM40ST-P)	**70%**	**67%**
Table 1B		

Canada
ENERGUIDE
Gas Fireplace Energy Efficiency Rating
Based on CSA P.4.1-02

Gas Pressure Requirements (All Models)

Tables 2 and 3 show the appliances' gas pressure requirements.

Inlet Gas Supply Pressure (all models)		
Fuel #	**Minimum**	**Maximum**
Natural Gas	**5.0" WC (1.24 kPa)**	**10.5" WC (2.61 kPa)**
Propane	**11.0" WC (2.74 kPa)**	**13.0" WC (3.23 kPa)**
Table 2		

Manifold Gas Supply Pressure (all models)		
Fuel #	**Low**	**High**
Natural Gas	**(Lo) 1.6" WC (0.4 kPa)**	**(Hi) 3.5" WC (0.87 kPa)**
Propane	**(Lo) 6.3" WC (1.57 kPa)**	**(Hi) 10.0" WC (2.49 kPa)**
Table 3		

Test gauge connections are provided on the front of the gas control valve, identified IN for the inlet and OUT for the manifold side (see ***Figure 1*** on ***Page 8***). The control valve has a 3/8" (10 mm) NPT thread inlet and outlet side of the valve.

These appliances must be isolated from the gas supply piping system (by closing their individual manual shut-off valve) during any pressure testing of the gas supply piping system at test pressures equal to or **less than** 1/2 psig (3.5 kPa).

These appliances and their individual shut-off valves must be disconnected from the gas supply piping system during any pressure testing of that system at pressures **greater than** 1/2 psig (3.5 kPa).

Orifice Sizes: Sea Level to High Altitude (All Models)

These appliances are tested and approved for installations at elevations of 0–4500 feet (0–1372 meters) above sea level using the standard burner orifice sizes (marked with an asterisk [*] in ***Table 4)***.

At the time of installation, it must be determined if the appliance needs to be derated. Contact your local gas supplier for deration requirements for your area.

Burner Orifice Sizes Elevation 0–4500 feet (0–1372 meters)	
Fireplace LSM40ST-N: Natural Gas Drill Size (inches)	**Fireplace LSM40ST-P: Propane Drill Size (inches)**
#32 (0.116")* [Orifice Cat. No. H8002]	**#52 (0.0635")* [Orifice Cat. No. H8003]**
Table 4	***Standard size installed at factory.**

Deration

At higher elevations, the amount of BTU fuel value delivered must be reduced by either using gas that has been derated by the gas company or by changing the burner orifice to a smaller size as regulated by the local authorities having jurisdiction and by the (USA) National Fuel Gas Code NFPA 54/ANSI Z223.1 - latest edition or, in Canada, the CAN/CSA-B149.1 codes - latest edition.

Burn-in Period

During the first few fires of this appliance there will be some odor due to the curing of the paint and burning off of lubricants used in the manufacturing process. Depending on your use, the burn-in period may take a few hours or a few days.

KEEP YOUR HOUSE WELL VENTILATED DURING THE CURING PROCESS. THE ODOR AND HAZE EMITTED DURING THE CURING PROCESS CAN BE QUITE NOTICEABLE AND MAY SET OFF A SMOKE DETECTOR.

NOTICE:

A white film may develop on the glass enclosure panel during the first few fires as part of the burn-in process.

The first few times you use the fireplace, clean the glass after each use (AFTER THE GLASS HAS COMPLETELY COOLED); otherwise, the white film will bake onto the glass and become difficult to remove.

See glass cleaning instructions on ***Page 9***.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

OPERATION AND CARE OF YOUR APPLIANCE

⚠ WARNING

Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces.

⚠ AVERTISSEMENT

Les jeunes enfants devraient être surveillés étroitement lorsqu'ils se trouvent dans la même pièce que l'appareil. Les tout petits, les jeunes enfants ou les adultes peuvent subir des brûlures s'ils viennent en contact avec la surface chaude. Il est recommandé d'installer une barrière physique si des personnes à risques habitent la maison. Pour empêcher l'accès à un foyer ou à un poêle, installez une barrière de sécurité; cette mesure empêchera les tout petits, les jeunes enfants et toute autre personne à risque d'avoir accès à la pièce et aux surfaces chaudes.

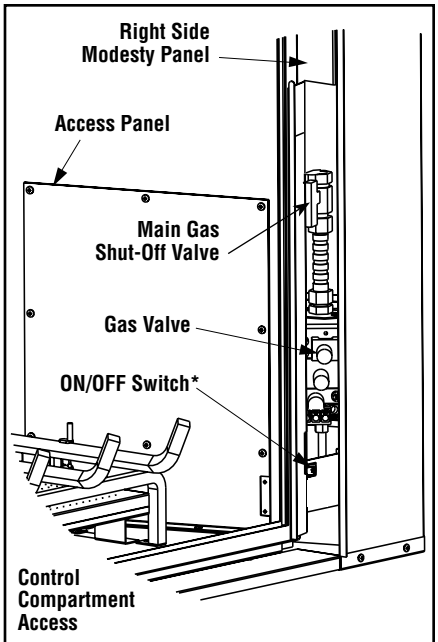
Familiarize yourself with the gas control valve that your appliance uses. Refer to ***Figure 1*** for access to the gas control valve.

To light the appliance refer to the detailed lighting instructions (see ***Pages 21 and 22***). The appliance lighting instructions may also be found on the pull out lighting instruction labels attached to the gas control valve.

These appliances are fitted with an ON/OFF rocker switch that, when toggled, switches from intermittent ignition to a standing pilot (see ***Figure 1***).

Gas Controls / Control Compartment Access

The gas controls can be found on the right hand side of the appliance as shown in ***Figure 1***.



***ON/OFF Switch:** Switches from intermittent ignition to a standing pilot (a standing pilot stays lit when fireplace is OFF).

Figure 1

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

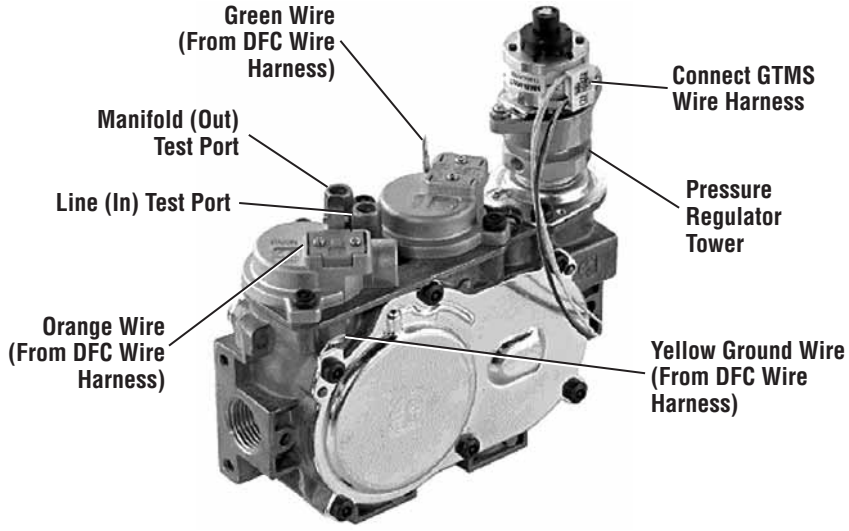

Green Wire (From DFC Wire Harness)
Connect GTMS Wire Harness
Manifold (Out) Test Port
Line (In) Test Port
Pressure Regulator Tower
Orange Wire (From DFC Wire Harness)
Yellow Ground Wire (From DFC Wire Harness)

Figure 2: SIT Proflame Gas Valve

Remote Control System

The Remote and Receiver allows you to command the functions of your fireplace from the comfort of your chair. It is configured to control the On/Off primary burner operation and flame levels (through six levels) and provide On/Off and Smart control of this appliance.

The receiver connects directly to the gas valve, stepper motor with and umbilical cord wiring harness (see wiring diagram on ***Page 18***).

The Receiver is powered by 4 AA type batteries, located within.

The Receiver accepts commands via radio frequency from the Transmitter and does not require line-of-sight operation.

The Receiver three position slider switch can be set to one of three positions: ON (Manual Override), REMOTE (Remote Control), or OFF.

Initializing the System for the First Time

Install the 4 AA batteries into the receiver battery bay (behind the wall switch plate).

Note: *Install the batteries into the battery bay as indicated on the battery cover. Ensure that batteries are installed with proper polarity (+/-).*

Place the three position slider switch in the "Remote" position (*see* ***Figure 3, next page***). Using the end of a paper clip, or other similar object, insert the end of the paper clip into the hole marked "PRG" on the Receiver front cover. The Receiver will "beep" three (3) times to indicate that it is ready to synchronize with a Transmitter.

Install the 3 AAA type batteries in the Transmitter battery bay, located on the base of the Transmitter. With the batteries already installed in the Transmitter, push the ON button. The Receiver will "beep" four times to indicate the Transmitter's command is accepted and sets to the particular code of that Transmitter. The system is now initialized.

Low Battery Power Detection

The life span of the Receiver batteries depends on various factors: quality of the batteries used, the number of ignitions of the appliance, the number of changes to the room temperature set point, etc.

When the Receiver batteries are low, no "beep" will be emitted from the Receiver when it receives an ON/OFF command from the Transmitter. This is an alert for a low battery condition for the Receiver. When the batteries are replaced the "beep" will be emitted from the Receiver when the ON/OFF key is pressed (See "Initializing the System for the First Time," ***at left***).

When the transmitter batteries are low, a battery icon will appear on the LCD display of the transmitter before all battery power is lost. When the batteries are replaced this icon will disappear.

⚠ WARNING

Fire Hazard. Can cause severe injury or death. The receiver causes ignition of the appliance. The appliance can turn on suddenly. Keep away from the appliance burner when operating the remote system or activating manual bypass of the remote system.

CAUTION: Property damage hazard. Excessive heat can cause property damage. The appliance can stay lit for many hours. Turn off the appliance if it is not going to be attended for any length of time. Always place the Transmitter where children can not reach it.

Temperature Indicator Display

With the system in the "OFF" position, press the Room Temperature Key and the Mode Key at the same time (*see* ***Figure 4, next page***). Look at the LCD screen on the Transmitter to verify that a C or F is visible to the right of the Room Temperature display (*see* ***Figure 5, next page***).

Turn On The Appliance

With the receiver switch in the "Remote" position, press the ON/OFF Key on the Transmitter. The Transmitter display will show all active Icons on the screen. At the same time, the Receiver connects to the gas valve coil and the appliance main burner turns on. A single "beep" from the Receiver will confirm reception of the command.

Turn Off The Appliance

Press the ON/OFF Key on the Transmitter. The Transmitter LCD display will only show the room temperature and Icon. At the same time, the Receiver disconnects the gas valve coil and the appliance burner turns off. A single "beep" from the Receiver confirms reception of the command.

Remote Flame Control

The system has six (6) flame levels. See ***Figure 6 (next page)*** for an example. With the system on, and the flame level at the maximum in the appliance, pressing the Down Arrow Key once will reduce the flame height by one step until the flame is turned off.

The Up Arrow Key will increase the flame height each time it is pressed. If the Up Arrow Key is pressed while the system is on but the flame is off, the flame will come on in the high position (*see* ***Figure 7, next page***). A single "beep will confirm reception of the command.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Key Lock

This function will lock the keys to avoid unsupervised operation To activate this function, press the MODE and UP keys at the same time. To de-activate this function, press MODE and UP Keys at the same time.

Intermittent/Standing Pilot Mode

This fireplace can be switched from intermittent ignition to a standing pilot simply by toggling the switch located in the control compartment (*refer to* ***Figure 1 on Page 5***). To save energy, switch to intermittent mode. To have a standing pilot which will help startup in the winter by warming the flue and the glass, switch to standing pilot. The standing pilot mode is indicated by a pilot that comes on and remains lit when the fireplace is off.

Manual Bypass Of The Remote System

If the batteries of the Receiver or Transmitter are low or depleted, the appliance can be turned on manually by sliding the three position slider switch to the ON position. This will bypass the remote control feature of the system and the appliance main burner will come on if the gas valve is in the "On" position.

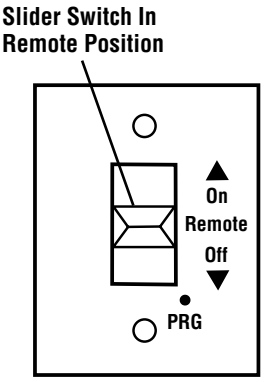


Figure 3: Receiver

Figure 4: Remote Control

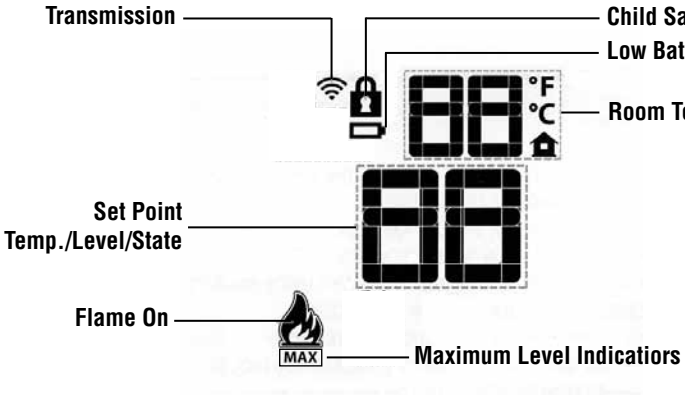


Figure 5: Indicator Icons

Flame Level 5

Figure 6

Flame Level Maximum

Figure 7

MAINTENANCE

(See Maintenance Schedule, *Page 23*)

Refer to the maintenance schedule for maintenance tasks, procedures, frequency and by whom they should be performed. Always verify proper operation of the appliance after servicing.

⚠ WARNING

Turn off gas and electrical power to the fireplace and allow it to cool before cleaning or servicing the appliance.

CAUTION: Wear gloves and safety glasses for protection while doing required maintenance.

Verify proper operation after servicing.

S'assurer que l'appareil fonctionne adéquatement une fois l'entretien terminé.

Always turn off gas to the pilot before cleaning. Before relighting, refer to the lighting instructions in this manual. Instructions are also found on a pull-out panel located in the control compartment.

Before relighting the fireplace, refer to the lighting instructions in this manual. Instructions are also found on pull-out panels located in the control compartment.

Inspect Venting System

The appliance and venting system should be thoroughly inspected before initial use and at least annually by a qualified service technician (inspection should include ensuring that exhaust or intake passages are unobstructed and vent components are properly assembled and not damaged). **Homeowner must contact a qualified service technician at once if any abnormal condition is observed.**

If the venting system is disassembled for any reason, a qualified service technician should follow vent installation instructions for proper reassembly and proper sealing of the venting system components. However, more frequent periodic inspections and cleanings should be performed by the homeowner.

Glass Cleaning

(For detailed glass door assembly removal/ installation instructions, see ***Page 12***.)

Note: *Clean glass after first two weeks of operation (after burn-in period is over) and then only when necessary and ONLY WHEN THE APPLIANCE IS COOL. Wipe surface with clean, dampened, soft cloth. Follow with dry, soft towel as desired. Take care not to scratch the glass surface.*

IMPORTANT: Do not use abrasive cleaners on glass. Never clean the glass when it is hot.

Clean the glass periodically, to remove any buildup caused by the following:

- *Filmy coating (during initial use after installation).* Initial curing of the high temperature paint and burning off of lubricants used in the manufacturing process may result in a filmy coating on the glass.
- *Dusty or dirty buildup.* It is normal for condensation and fog to form on the inside of the glass when first starting the appliance. This condensation and fog will usually disappear within a few minutes; however, over time the moisture can cause lint, dust, and other airborne particles to cling to the glass surface.
- *White coating.* A white coating may form on the glass as a result of impurities and minerals in the fuel.

It is recommended that the glass be cleaned two or three times during each heating season, depending on the circumstances. The following cleaning solutions are approved for use to clean the glass:

- Non-ammonia based household cleaner
- 50% white vinegar and 50% water
- Gas fireplace/stove glass cleaner

Inspect Glass Gasket

Visually inspect the gasket on the backside of the glass enclosure panels. The gasket surface must be clean, free of irregularities and seated firmly.

Clean Control Compartment

Keep control compartment clean by vacuuming or brushing at least twice a year. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc. It is important that control compartments, burners and circulating air passageways of the appliance be kept clean.

Clean Logs and Burner

Carefully remove the logs (use care when handling the fiber logs, as they become quite fragile after curing). Vacuum out any foreign matter (lint, carbon, etc.) on the burner. Ensure the burner ports are "open." Remove any carbon deposits from the under side of the logs using a vacuum cleaner, or a soft bristled brush (i.e. paint brush).

Note: *Improper positioning of logs can create carbon build-up and will alter the performance of the appliance.*

Replacing Logs

If the logs become damaged by accident or improper handling and need replacement, use only the proper replacement logs from manufacturer (see ***Pages 18, 25, and 26*** for ordering information).

Reinstall Embers, Volcanic Stone, and Logs

Carefully follow placement instructions on ***Pages 13–15***). All logs should fit onto corresponding pins and/or log stoppers. This will ensure a proper flame and safe combustion.

Inspect Wiring

Refer to wiring diagram on ***Page 18***.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

ATTENTION: Au moment de l'entretien des commandes, étiquetez tous les fils avant de les débrancher. Des erreurs de câblage peuvent entraîner un fonctionnement inadéquat et dangereux.

Inspect and clean all wire connections. Ensure that there is no melting or damage. Inspection should include:

- Terminals at the valve
- OFF/ON Switch

Inspect Burner Flame Appearance

Ensure that the burner flame appearance resembles the flame shown in ***Figures 20 and 21*** and as described in *Flame Appearance and Sooting* on ***Page 16***. The homeowner must contact a qualified service technician at once if any abnormal condition is observed.

Small Area Paint Touch-up

Only use a factory supplied paint kit for touch-ups. Paint is available at your local authorized Lennox Hearth Products dealer. Never attempt to paint a hot fireplace.

If the surface later becomes stained or marred, it may be lightly sanded and touched up with spray paint.

REMOVAL AND INSTALLATION OF GLASS DOORS, MESH PULL SCREENS, AND MODESTY PANEL

⚠ WARNING

HOT GLASS WILL CAUSE BURNS.
DO NOT TOUCH GLASS UNTIL COOLED.

- **Install only when fireplace is OFF and COLD.**
- **Fireplace surfaces get EXTREMELY HOT!**
- **The glass on the front of the fireplace reaches EXTREMELY HIGH temperatures and can cause severe burns if touched. Even after the gas is turned off, fireplace surfaces remain extremely hot.**

⚠ CAUTION

RISK OF PERSONAL INJURY OR PROPERTY DAMAGE.

- **Do NOT abuse glass doors by striking or slamming shut**
- **Never operate fireplace with glass door assemblies removed.**
  These direct-vent appliances are designed to operate only when both glass door assemblies are installed. Generally, the glass door assemblies should not be removed, except when access to components within the firebox is required.
- **Securely tighten door latch screws when reinstalling glass door assemblies to prevent doors from falling out.**
- **Handle glass door assemblies with extreme care. Replace damaged glass door assemblies with approved replacement assemblies only.**
  The door assemblies on this fireplace contain ceramic glass. Handle with care to prevent damage. If the door frame or glass on either assembly becomes damaged, replace the entire glass door assembly with a manufacturer-approved replacement assembly only. Do not attempt to substitute any materials used on door assemblies or replace cracked or broken glass with any other materials.

⚠ WARNING

Any safety screen or guard removed for servicing the appliance must be replaced prior to operating the appliance.

⚠ AVERTISSEMENT

Tout écran ou protecteur retiré pour permettre l'entretien de l'appareil doit être remis en place avant de mettre l'appareil en marche.

Removing Glass Doors, Mesh Pull Screens, and Modesty Panel
(see *Figure 8*)

1) Remove the mesh pull screens, as follows:
   a) Lift up the left end of the rod to disengage it from the slot in the left rod bracket.
   b) Slowly remove the right end of the rod from the hole in the right rod bracket.
   c) Set aside the rod and mesh pull screens for later reinstallation.
2) Remove the modesty panel from the top flange of the glass door by firmly pulling up on it with both hands until it is disengaged.
3) Remove one of the glass doors, as follows:
   a) See ***Figure 8***. **While holding the top of the glass door frame in place**, use a #3 Phillips screwdriver to remove the two (2) screws securing the door frame to the two (2) door latches.
   b) Carefully tilt the top of the glass door frame away from the unit (as shown in ***Figure 8***), and then lift the door assembly up and out of the lower track.
   c) Carefully place the glass door assembly on a padded surface in a safe location to prevent damage.

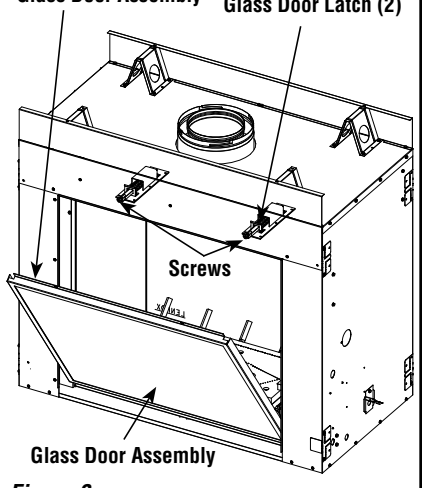


Figure 8

⚠ WARNING

Do not operate appliance with the glass front removed, cracked or broken.

⚠ AVERTISSEMENT

Ne pas utiliser l'appareil si le panneau frontal en verre n'est pas en place, est craqué ou brisé.

Installing Glass Doors, Mesh Pull Screens, and Modesty Panel
(see *Figure 8)*

Note: These instructions do <u>NOT</u> apply to the <u>Outer Glass Door</u> provided in the Outdoor Kit (for indoor/outdoor installations).

- **Only doors certified with the appliance shall be used.**
  - **Seules des portes certifiées pour cet appareil doivent être utilisées.**

1) Install one of the glass doors, as follows:
   a) Retrieve the glass door. Visually inspect the gasket on the back of the frame. Gasket surface must be clean, free of irregularities, and seated firmly.
   b) Position the door in front of the firebox opening, with the top of the door held away from the fireplace (see ***Figure 8***).
   c) Lower the bottom of the door assembly onto the bottom door track, engaging and centering it in the base channel, and then gently swing the door up.
   d) Using a #3 Phillips screwdriver, fasten the door frame to the door latches with the two (2) latch screws. The latches should pull forward to engage the door frame.

Note: Securely tighten latch screws when reinstalling glass door assembly.

2) Install the modesty panel on the top flange of the glass door, as follows:
   a) Grasp the modesty panel with both hands (with the open hem facing down).
   b) Engage it with the top flange of the glass door frame by pushing it all the way down. Make sure the installed modesty panel is firmly in place.
3) Install the mesh pull screens, as follows:
   a) Retrieve the rod and two mesh pull screens. If necessary, attach screens to rod.
   b) Slowly insert the right end of the rod into the hole in the right rod bracket.
   c) Insert the left end of the rod into the slot in the left rod bracket.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

PLACEMENT OF VOLCANIC STONE, GLOWING EMBERS, AND LOGS

1. Remove glass door and mesh pull screens from one side of fireplace only (see ***Page 12***).
2. Locate materials (log set, bag of glowing embers, and bags of volcanic stone).

   Note: LOGS ARE FRAGILE! *Handle with care to prevent breakage.*
3. Install volcanic stone. Place some of the volcanic stone on the firebox floor around the grate (the entire bag of volcanic stone will NOT be used).

   Note: *Do NOT place volcanic stone on burner.*
4. Prepare and install glowing embers.

   Note: *This appliance is provided with enough glowing ember material for several applications. Do NOT use the entire contents of a new bag at one time.*

   a) Separate some of the glowing ember material into pieces **about the size and thickness of a dime** (see ***Figure 9***). Keep the pieces fluffed up, not matted.

   IMPORTANT! Ember pieces must be as SMALL and THIN as a dime.

   b) Distribute the dime-sized pieces over the surface of the burner, in the areas shown in ***Figures 10 and 11***.

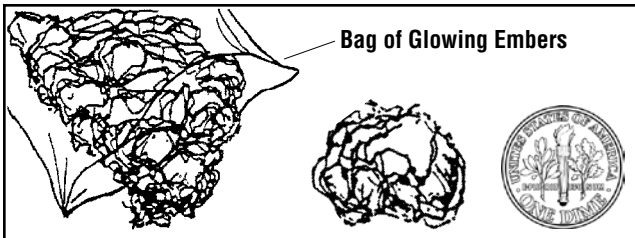
   Note: *To prevent flame impingement and soot, do not use more ember material than necessary.*

   c) For best glowing effect, replace ember material annually.

   Note: *Use only catalog number H8312 Glowing Embers with this fireplace.*

⚠ WARNING

- **DO NOT attempt to install the logs until the appliance installation has been completed, the gas line connected and tested for leaks, and the initial burner operation has been checked out.**
- **Logs get very hot and will remain hot up to one hour after gas supply is turned off. Handle only when logs are cool. Turn off all electricity to the appliance before you install volcanic stone, embers and logs.**
- **The size and position of the log set was engineered to give the appliance a safe, reliable and attractive flame pattern. Any attempt to use a different log set in the fireplace will void the warranty and will result in incomplete combustion, sooting, and poor flame quality.**
- **This appliance is not designed to burn wood. Any attempt to do so could cause irreparable damage to the appliance and prove hazardous to your safety.**
- **If logs are not installed according to the log installation instructions, flame impingement and improper combustion could occur and result in soot and/or excessive production of carbon monoxide (CO), a colorless, odorless, toxic gas.**



*Separate glowing ember material into **THIN**, square, dime-sized pieces.*

Figure 9: Preparation of Glowing Ember Material

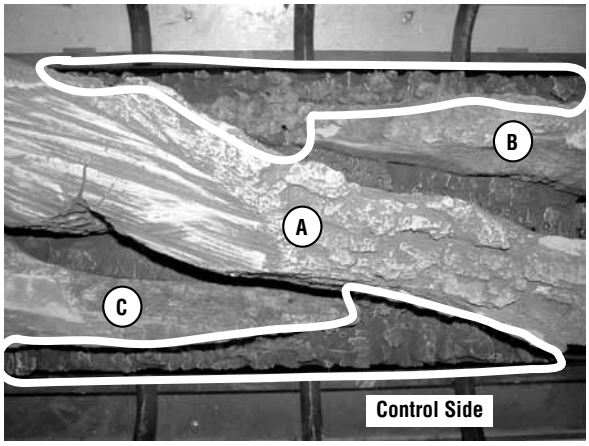
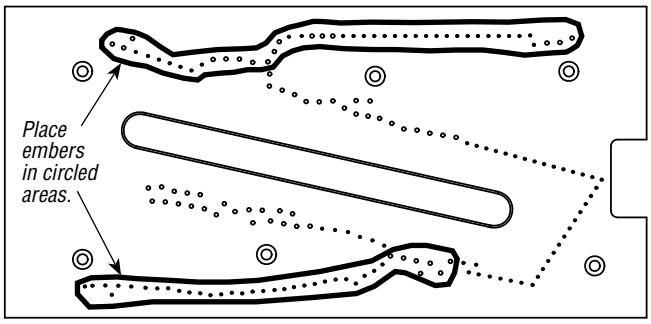


Figure 10: Placement of Glowing Ember Pieces



Control Side
(top view of burner shown)

- ***Place glowing ember material in circled areas ONLY.***
- ***Do NOT place glowing ember material over main flame gas ports.***
- ***To prevent flame impingement and soot, do not use more ember material than necessary.***

Figure 11: Placement of Glowing Embers

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

5. Install logs (reference ***Figure 12*** and ***Table 5***).

Note: Logs are FRAGILE! Handle with care to prevent breakage.

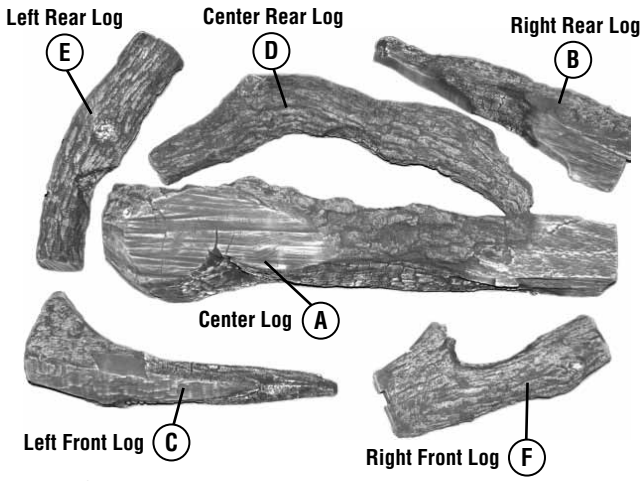


Figure 12: Top View of Logs

LOG SET			
Item*	Description	Item*	Description
A	Log, Center	D	Log, Top Right
B	Log, Right Rear	E	Log, Top Left
C	Log, Left Front	F	Log, Top Front
**Item letters correspond to photos.*			

FIREBOX ACCESSORIES/PARTS		
Cat. No.	Model	Description
H8312	PGE	Bag of Glowing Embers
80L42	FDVS	Bag of Volcanic Stone

Table 5

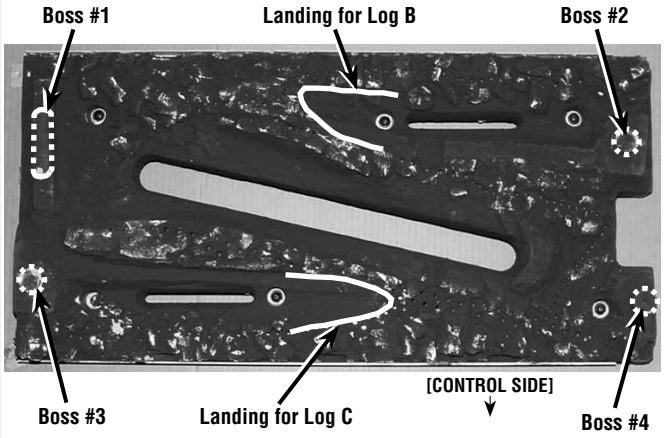


Figure 13: Burner Bosses and Landings

6. Place rectangular notches on underside of **Center Log A** (***Figure 14***) over **Boss #1** and **Boss #4** (***Figure 13***).

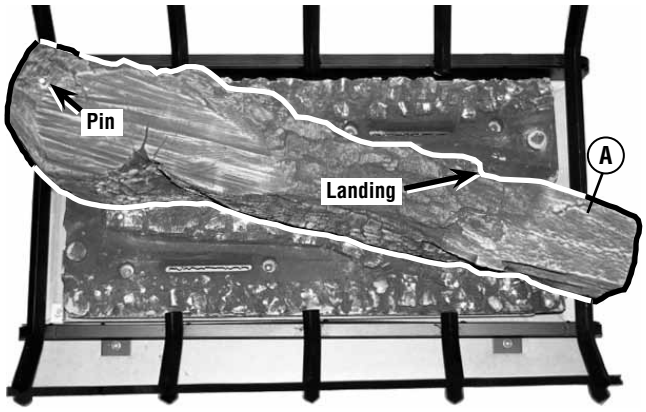


Figure 14

7. Place notch on underside of **Right Rear Log B** (***Figure 15***) over **Boss #2** (***Figure 13***).

Place opposite end of **Right Rear Log B** (***Figure 15***) on **Landing for Log B** (see ***Figure 13***).

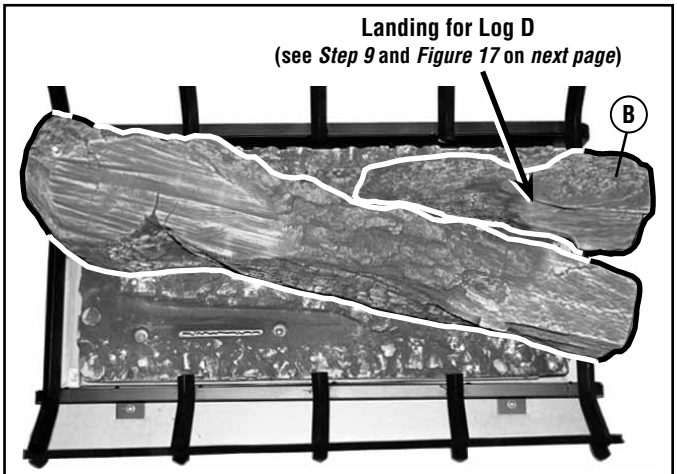


Figure 15

8. See ***Figures 13 and 16***. Place notch on underside of **Left Front Log C** over **Boss #3**.

Place opposite end of **Left Front Log C** on **Landing for Log C** (see ***Figure 13***).

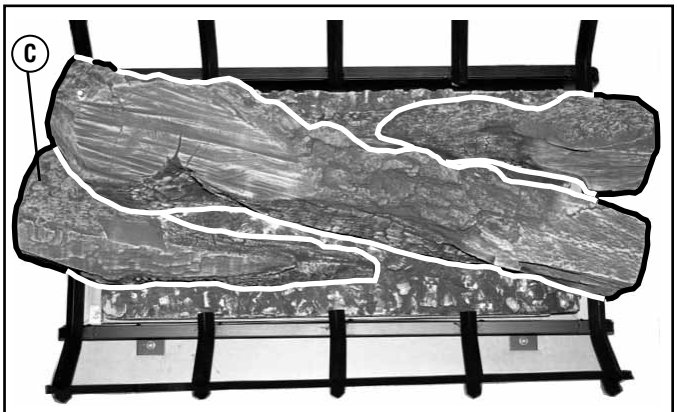


Figure 16

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

9. Place groove on underside of **Top Right Log D** over the grate as shown in ***Figure 17***.

The middle section of **Log D** will rest on the landing on **Log B** (labeled as "**Landing for Log D"** in ***Figure 15***).

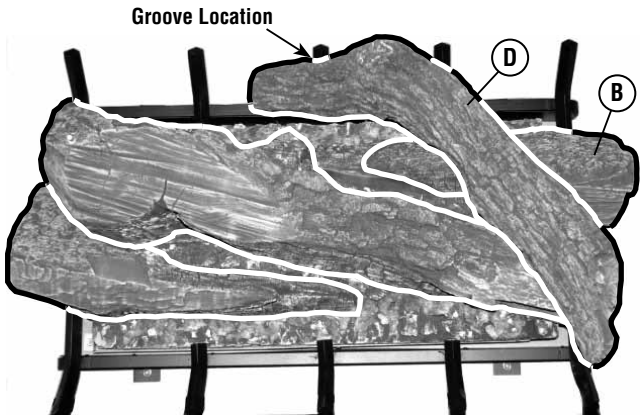


Figure 17

10. See ***Figure 18***. Place hole on underside of **Top Left Log E** over pin on **Center Log A**.

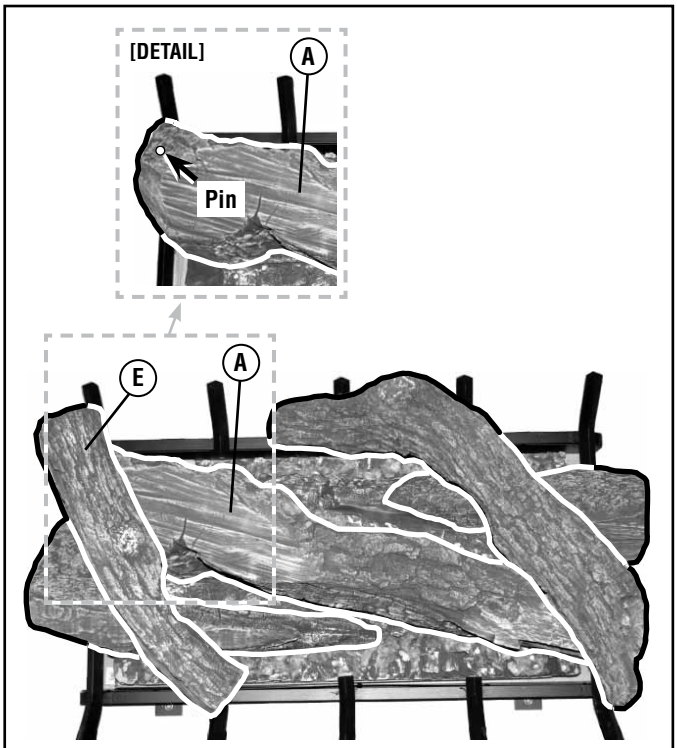


Figure 18

11. See ***Figure 19***. Place groove on underside of **Top Front Log F** over the grate finger. Rest the other end of the log on the **Landing** on **Center Log A**.

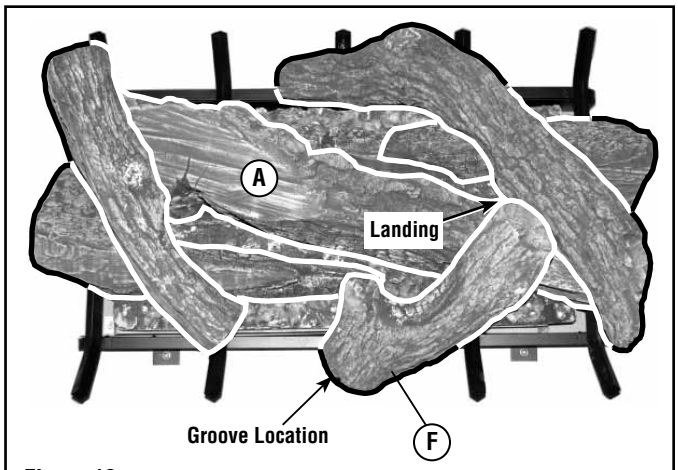


Figure 19

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

BURNER ADJUSTMENTS
(QUALIFIED TECHNICIANS ONLY)

Flame Appearance and Sooting

Proper flame appearance is a flame that is blue at the base and becomes yellowish-orange in the body of the flame. When the appliance is first lit, the entire flame may be blue and will gradually turn yellowish-orange during the first 30 minutes of operation. After 30 minutes of operation, if the flame is blue, or if the flame is orange with evidence of sooting (black tip), the air shutter opening may need to be adjusted.

If the air shutter opening is closed too far, sooting may develop. Sooting is indicated by black puffs developing at the tips of very long orange flames. Sooting results in black deposits forming on the logs, appliance inside surfaces and on exterior surfaces adjacent to the vent termination.

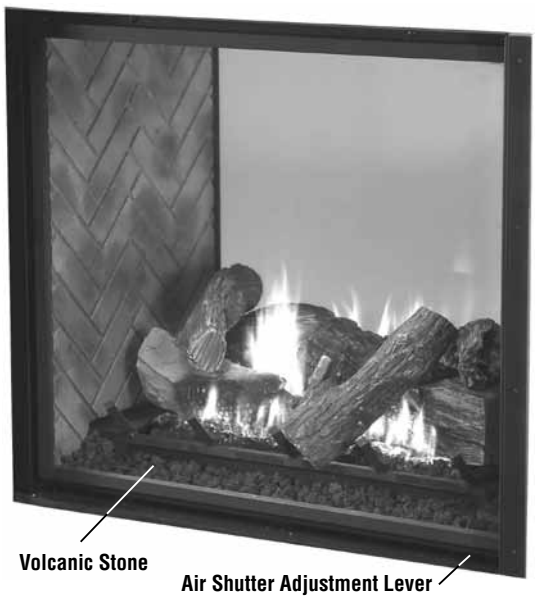
Sooting is caused by incomplete combustion in the flames and lack of combustion air entering the air shutter opening. To achieve a warm yellowish-orange flame with an orange body that does not soot, the shutter opening must be adjusted between these two extremes.

Burner Air Shutter Adjustment Guidelines

- If there is smoke or soot present, first check the log set positioning to ensure that the flames are not impinging on any of the logs. If the log set is properly positioned and a sooting condition still exists, then the air shutter opening should be increased.
- The more offsets in the vent system, the larger the air shutter opening will need to be.
- An appliance operated with the air shutter opened too far, may have flames that appear blue and transparent. These weak, blue and transparent flames are termed anemic.
- Propane models may exhibit flames which candle or appear stringy. If this is present and persists, adjust the air shutter to a more OPEN position, then operate the appliance for a few more minutes to ensure that the flame normalizes and the flames do not appear sooty.

The following chart is provided to aid you in achieving the correct air shutter adjustment for your installation.

Air Shutter Adjustment Guidelines:		
Amount of Primary Air	**Flame Color**	**Air Shutter Adjustment**
If air shutter is closed too far →	**Flame will be orange →**	**Air shutter gap should be increased**
If air shutter is open too far →	**Flame will be blue →**	**Air shutter gap should be decreased**



Burner Flame Appearance (Control Side)

Figure 20

Burner Flame Appearance (Opposite Control Side)

Figure 21

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Burner Air Shutter Adjustment Procedure

⚠ WARNING

HOT GLASS WILL CAUSE BURNS.
DO NOT TOUCH GLASS UNTIL COOLED.

- **Fireplace surfaces get EXTREMELY HOT!**
- **The glass on the front of the fireplace reaches EXTREMELY HIGH temperatures and can cause severe burns if touched. Even after the gas is turned off, fireplace surfaces remain extremely hot.**

⚠ CAUTION

RISK OF PERSONAL INJURY OR PROPERTY DAMAGE.

- **Air shutter adjustment should only be performed by a qualified professional service technician.**
- **Soot will be produced if the air shutter is closed too much. Any damage due to carboning resulting from improperly setting the air shutter is not covered under the warranty.**

1. Light the appliance (follow lighting procedure in *Care and Operation Instructions* or on lighting label in control compartment).
2. Allow the burner to operate for at least 30 minutes while continuously observing the flame to ensure that the proper flame appearance has been achieved (see ***Figures 20 and 21***).
3. Adjust the air shutter using the Air Shutter Adjustment Lever on the lower right side of the firebox (see ***Figure 20***).
   - **For more OPEN air shutter, slide lever to the RIGHT.**
   - **For more CLOSED air shutter, slide lever to the LEFT.**

   A minimum shutter setting is designed into the venturi by four 1/16"-inch tabs.
   - If the flame appears weak or sooty (as described on the previous page), adjust the air shutter until proper flame appearance is achieved.
   - If flame stays lowered blue, ***incrementally*** adjust the air shutter to a more CLOSED position until proper flame appearance is achieved.

Note: *See* ***Figures 20 and 21*** *for proper burner flame appearance.*

Electronic Appliance Checkout

To light the burner, refer to the lighting instructions on ***Page 21***. Ensure the igniter lights the pilot. The pilot flame should engulf the flame sensor as shown in ***Figure 22***.

PILOT ASSEMBLY

Proper Pilot Flame Appearance

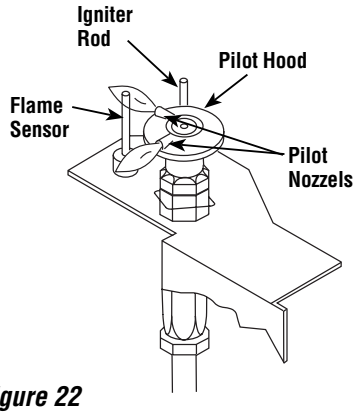


Figure 22

ORDERING REPLACEMENT PARTS

A complete parts list is found at the end of this manual. Use only parts supplied from the manufacturer.

With proper care and maintenance, your appliance will provide many years of enjoyment. If you should experience any problem, first refer to the troubleshooting guide in this manual. If the problem persists, contact your Lennox Hearth Products dealer or distributor.

Order parts through your Lennox Hearth Products distributor or dealer. Parts will be shipped at prevailing prices at time of order.

When ordering parts, provide the following information:

1. Appliance model number.
2. Appliance serial number.
3. Part number.
4. Part description.
5. Quantity required.
6. Appliance installation date.

If you encounter any problems or have any questions concerning the installation or application of this system, please contact your dealer or distributor.

PRODUCT REFERENCE INFORMATION

We recommend that you record the important reference information about your fireplace in the space provided below.

Please call Lennox Hearth Products for the phone number of your nearest LHP dealer, who will answer your questions or address your concerns.

LENNOX HEARTH PRODUCTS
1508 Elm Hill Pike, Suite 108
Nashville, TN 37210
Visit us at www.Lennox.com
1-800-9-LENNOX

Product Reference Information			
Cat. No.	**Model**	**Ship. Wt.**	**Ship. Volume**
H7937	LSM40ST-N	382 lb.	51.25 cu. ft.
H7938	LSM40ST-P	382 lb.	51.25 cu. ft.

PRODUCT REFERENCE INFORMATION

Model Number _____

Serial Number _____

Date Installed _____

Gas Type Used _____

Dealer Name _____

WIRING DIAGRAM

A wiring diagram is provided here for reference purposes only. This information is also provided on schematics attached directly to a pullout panel in the appliance control compartment.

CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS APPLIANCE OPERATION.

ATTENTION: AU MOMENT DE L'ENTRETIEN DES COMMANDES, ÉTIQUETEZ TOUS LES FILS AVANT DE LES DÉBRANCHER. DES ERREURS DE CÂBLAGE PEU-VENT ENTRAÎNER UN FONCTIONNEMENT INADÉQUAT ET DANGEREUX.

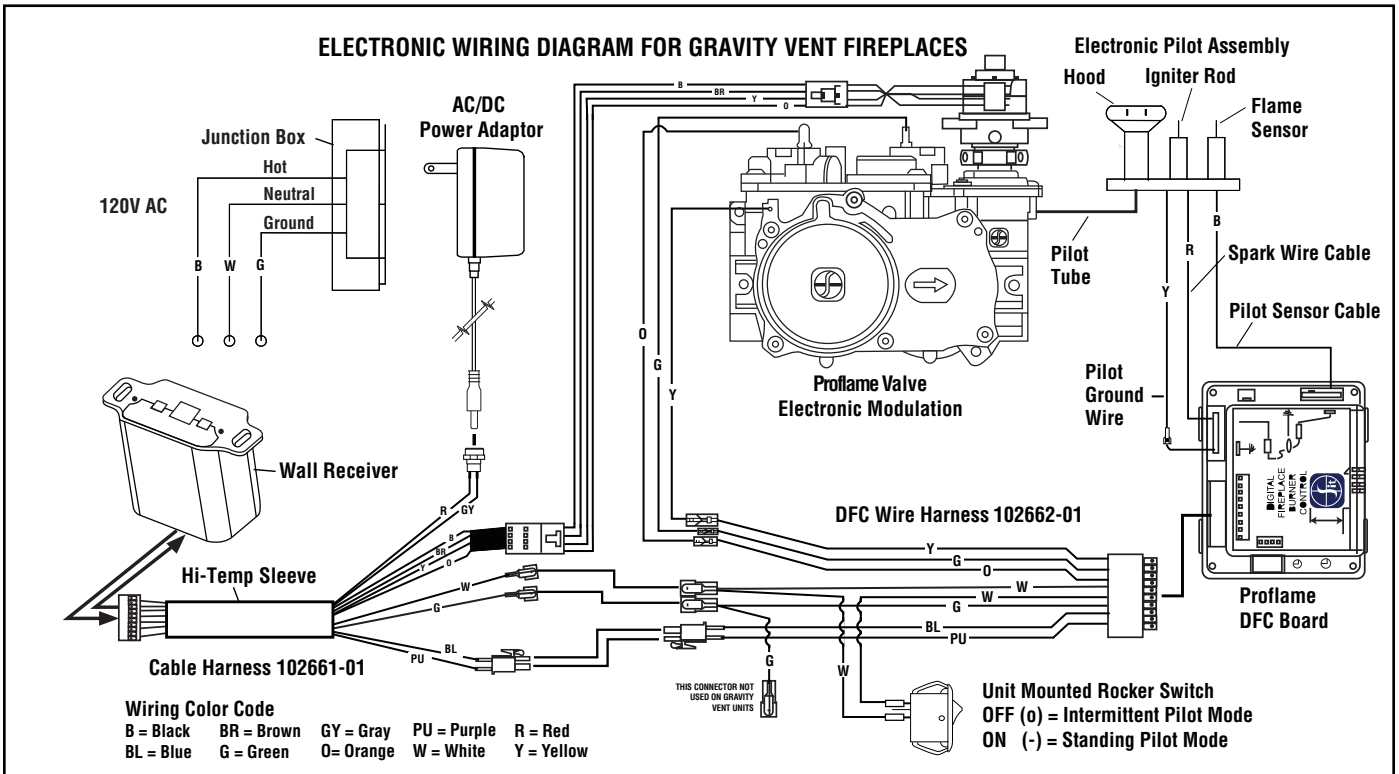


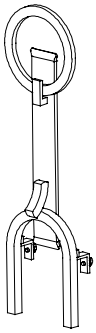
Figure 23: Electronic Wiring Diagram

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

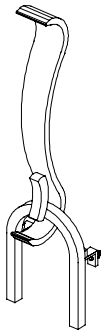
ACCESSORY COMPONENTS

Andiron Kits

The andiron kits include two andirons for one side. If andirons are desired for both sides, order two kits. The andirons attach to the grate assembly without the use of hardware.



MISSION
(AKM-LSM)



CLASSIC
(AKC-LSM)

Andiron Kits		
Cat. No.	Model	Description
H2227	AKM-LSM	Andirons, Mission
H2228	AKC-LSM	Andirons, Classic

(Andiron Kit Instructions P/N 750183M)

Ceramic and Porcelain Panel Kits

The panel kits include ceramic and porcelain panels for the side walls.

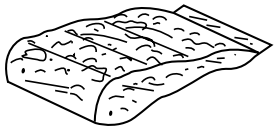
The ceramic panels have brick-like features in relief.

Cat. No.	Model	Description
H7946	BLK-ARCH-LSM40ST	Ceramic, Architectural Stone
H8291	BLK-B-LSM40ST	Ceramic, Black Rustic
H7943	BLK-H-LSM40ST	Ceramic, Buff Herringbone
H7942	BLK-R-LSM40ST	Ceramic, Buff Rustic
H7947	BLK-VT-LSM40ST	Ceramic, Venetian Tile
H7948	BLK-BP-LSM40ST	Porcelain, Black

(Firebox Liner Panel Kit Instructions P/N 506019-21)

Bag of Glowing Embers
Bag of Volcanic Stone

Replacement ember material and volcanic stone are available for use with these appliances. Order them to replace materials as part of the periodic maintenance of the appliance.



Firebox Accessories		
Cat. No.	Model	Description
H8312	PGE	Bag of Glowing Embers
80L42	FDVS	Bag of Volcanic Stone

(Volcanic Stone Kit Instructions P/N 750010M)

Touch-Up Paint Kit

Repair of minor scratches and discoloration of the appliances black painted surfaces may be accomplished with the touch-up paint kit.

Touch-Up Paint (Black) Kit		
Cat. No.	Model	Description
90L73	FTPK-B	Black Paint Kit

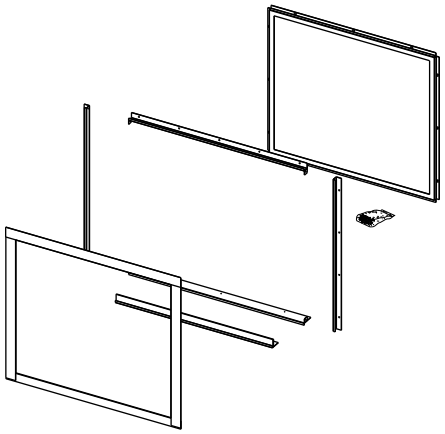
(Touch-Up Paint Kit Instructions P/N 750050M)

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

ACCESSORY COMPONENTS
(continued)

Outdoor Kit

When installing this appliance in an indoor / outdoor configuration, this outdoor kit is required to be installed on the outdoor side.

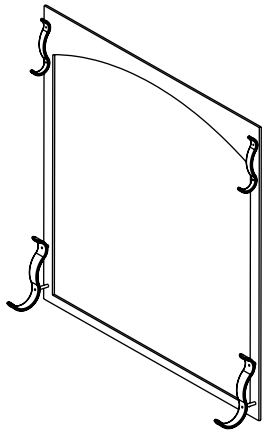


Outdoor Kit		
Cat. No.	**Model**	**Description**
H7940	**LSM40STODK**	**Outdoor Kit (light-tint glass)**
H8061	**LSM40ST-ODKT**	**Outdoor Kit (dark-tint glass)**

(Outdoor Kit Instructions P/N 506019-20)

Arch Screen Kits

These decorative freestanding firescreen panels are designed to enhance the beauty of the fireplace and create a barrier to prevent direct contact with the hot glass.

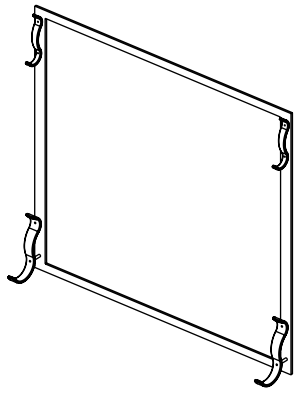


Arch Screen Kits		
Cat. No.	**Model**	**Description**
H5053	**ASK-LSM40-2**	**Arch Screen Kit**

(Decorative Screen Kit Instructions P/N 750184M)

Classic Screen Kits

These decorative freestanding firescreen panels are designed to enhance the beauty of the fireplace and create a barrier to prevent direct contact with the hot glass.

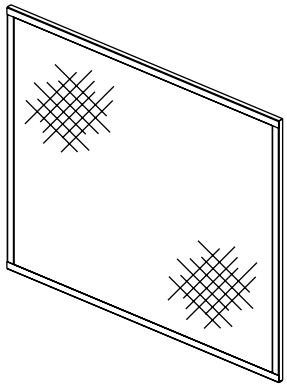


Classic Screen Kits		
Cat. No.	**Model**	**Description**
H5052	**SK-LSM40-2**	**Classic Screen Kit**

(Decorative Screen Kit Instructions P/N 750184M)

Barrier Screen Kits

These barrier screen kits create a barrier to prevent direct contact with the hot glass. The screen panel affixes directly to the front glass enclosure panel.

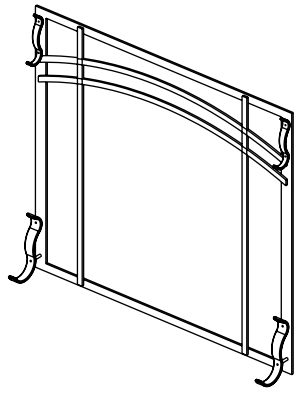


Barrier Screen Kits		
Cat. No.	**Model**	**Description**
H4805	**BSK40**	**Barrier Screen**

(Barrier Screen Kit Instructions P/N 750101M)

Dual Arch Screen Kits

These decorative freestanding firescreen panels are designed to enhance the beauty of the fireplace and create a barrier to prevent direct contact with the hot glass.



Dual Arch Screen Kits		
Cat. No.	**Model**	**Description**
H5051	**DASK-LSM40-2**	**Dual Arch Screen**

(Decorative Screen Kit Instructions P/N 750184M)

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

OPERATING INSTRUCTIONS

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.

B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

C. If any portion of this appliance does not operate as the instructions indicate, do not try to repair it, call a qualified service technician. Do not use tools. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

OPERATING INSTRUCTIONS

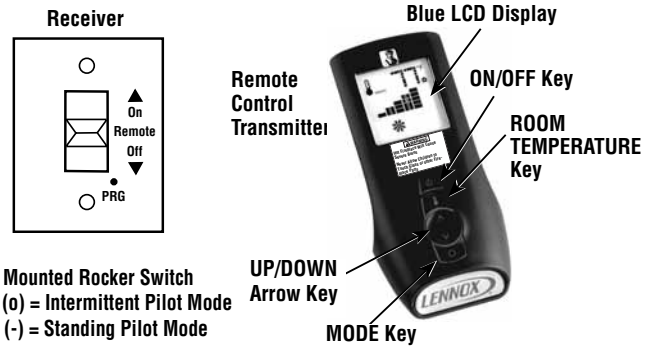
1. STOP! Read the safety information above on this page.

2. Turn OFF all electric power to the appliance.

3. Read this manual including the section on "Remote Control System."

4. Slide the switch on the receiver to OFF.

5. Press ON/OFF button on transmitter to OFF.



6. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.

7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above (to the left) on this label. If you don't smell gas, go to the next step.

8. Turn on all electric power to the appliance.

9. Slide the switch on the receiver to REMOTE.

10. Press ON/OFF button on transmitter to ON.

11. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE

1. Turn off all electric power to the appliance if service is to be performed.

2. Slide the switch on the receiver to OFF.

3. Press ON/OFF button on the transmitter to OFF.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

INSTRUCTIONS D'ALLUMAGE

POUR PLUS DE SÉCURITÉ LIRE AVANT DE METTRE EN MARCHE

AVERTISSEMENT. QUICONQUE NE RESPECTE PAS À LA LETTRE LES INSTRUCTIONS DANS LA PRÉSENTE NOTICE RISQUE DE DÉCLENCHER UN INCENDIE OU UNE EXPLOSION ENTRAÎNANT DES DOMMAGES, DES BLESSURES OU LA MORT.

A. Cet appareil est muni d'un dispositif d'allumage qui allume automatiquement la veilleuse. Ne tentez pas d'allumer la veilleuse manuellement.

B. AVANT DE FAIRE FONCTIONNER, reniflez tout autour de l'appareil pour déceler une odeur de gaz. Reniflez près du plancher, car certains gaz sont plus lourds que l'air et peuvent s'accumuler au niveau du sol.

QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ :

- Ne pas tenter d'allumer d'appareil.
- Ne touchez à aucun interrupteur; ne pas vous servir des téléphones se trouvant dans le bâtiment.
- Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez rejoindre le fournisseur, appelez le service des incendies.

C. Si un élément de cette unité ne fonctionne pas tel que décrit dans les instructions, n'essayez pas de le réparer, appelez un technicien qualifié. N'utilisez-pas d'outils. Le fait de forcer la manette ou de la réparer peut déclencher une explosion ou un incendie.

D. N'utilisez pas cet appareil s'il a été plongé dans l'eau, même partiellement. Faites inspecter l'appareil par un technicien qualifié et remplacez toute partie du système de contrôle et toute commande qui ont été plongés dans l'eau.

INSTRUCTIONS DE MISE EN MARCHE

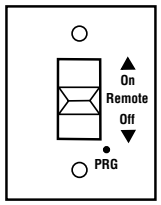
1. ARRÊTEZ ! Lisez les avertissements de sécurité à l'endos de cette étiquette.

2. Coupez l'alimentation électrique de l'appareil.

3. Lisez le manuel d'utilisation et d'entretien incluant la section « Système de télécommande ».

4. Placez l'interrupteur du récepteur en position "OFF".

5. Appuyez sur le bouton "ON/OFF" pour sélectionner "OFF".



Interrupteur à bascule sur l'unité
OFF (o) = veilleuse intermittente
ON (-) = veilleuse permanente

6. Cet appareil est muni d'un dispositif d'allumage qui allume automatiquement la veilleuse. Ne tentez pas d'allumer la veilleuse manuellement.

7. Attendre cinq (5) minutes** pour laisser échapper tout le gaz. Reniflez tout autour de l'appareil, y compris près du plancher, pour déceler une odeur de gaz. Si vous sentez une odeur de gaz, ARRÊTEZ ! Passez à l'étape B des instructions de sécurité sur la portion supérieure (à gauche) de cette étiquette. S'il n'y a pas d'odeur de gaz, passez à l'étape suivante.

8. Mettez l'appareil sous tension.

9. Placez l'interrupteur du récepteur en position "REMOTE".

10. Appuyez sur le bouton "ON/OFF" pour sélectionner "ON".

11. Si l'appareil ne se met pas en marche, suivez les instructions intitulées « Comment couper l'admission de gaz de l'appareil » et appelez un technicien qualifié ou le fournisseur de gaz.

COMMENT COUPER L'ADMISSION DE GAZ DE L'APPAREIL

1. Coupez l'alimentation électrique de l'appareil s'il faut procéder à l'entretien.

2. Sélectionnez OFF sur le récepteur.

3. Appuyez sur le bouton ON/OFF et sélectionnez OFF.

REMARQUE : LES SCHÉMAS ET LES ILLUSTRATIONS NE SONT PAS À L'ÉCHELLE

MAINTENANCE SCHEDULE

⚠ WARNING: BURN HAZARD.
Turn OFF gas and electrical power to the fireplace, and allow it to cool before cleaning or servicing the appliance.

Annually (before onset of burning season)

MAINTENANCE TASK	ACCOMPLISHING PERSON	PROCEDURE
Inspect/Clean Burner, Logs, and Controls	Qualified Service Technician	Inspect valve and ensure it is properly operating. Check piping for leaks. Vacuum the control compartment, fireplace logs and burner area.
Check Flame Patterns and Flame Height	Qualified Service Technician	Refer to ***Figures 20 and 21 on Page 16*** and verify the flame pattern and height displayed by the appliance conform to the illustration. Flames must not impinge on the logs. Ensure flames are steady (not lifting or floating).
Inspect/Clean Pilot and Burner	Qualified Service Technician	Refer to ***Figure 22 on Page 17***. Remove any surface build-up on pilot and burner assembly. Wipe the pilot nozzles, igniter/flame rod and hood. Ensure the pilot flame engulfs the flame sensor as shown.
Check Vent System	Qualified Service Technician	Inspect the vent system at the top and at the base (within the firebox) for signs of blockage or obstruction. Look for any signs of dislocation or deterioration of the vent components (reconnect or replace as necessary).
Appliance Checkout	Qualified Service Technician	Perform the appropriate appliance checkout procedure detailed in this manual.
Replace Glowing Embers	Homeowner/Qualified Service Technician	Remove old ember materials and vacuum the ember placement area. Place new embers per instructions on ***Page 13.***

Periodically (after burning season)

MAINTENANCE TASK	ACCOMPLISHING PERSON	PROCEDURE
Clean Firebox Interior	Homeowner	Carefully remove logs, rockwool and volcanic stone. Vacuum out interior of the firebox. Clean firebox walls and log grate. Replace logs, rockwool and volcanic stone as detailed in this manual.
Check Flame Patterns and Flame Height	Homeowner	Refer to ***Figures 20 and 21 on Page 16*** and verify the flame pattern and height displayed by the appliance conforms to the picture. Flames must not impinge on the logs.
Clean Front Glass Enclosure Panel	Homeowner	Clean as necessary following the directions provided in this manual. **DO NOT TOUCH OR ATTEMPT TO CLEAN GLASS WHILE HOT**.

TROUBLESHOOTING THE MONTEBELLO™ LSM40ST FIREPLACE

Note: Before troubleshooting the gas control system, make sure the external gas shutoff valve (located at gas supply inlet) is in the "ON" position.

Important: Valve system troubleshooting should only be accomplished by a qualified service technician.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
1. Nothing happens when fireplace is turned On/Off.	**A.** Remote is not functioning properly.	• Check that the wall switch plate is set to remote (if remote was used). • Operate the fireplace from the wall plate switch. • Replace remote and/or receiver batteries.
	B. Gas is not reaching the fireplace.	Check the gas supply and gas shutoff valves.
	C. Unit is not receiving power.	• Check/replace backup batteries behind wall plate. • Check building circuit breakers to ensure power is on to the fireplace.
2. The main burner does not light, and the igniter is sparking.	**A.** Gas is not reaching the fireplace.	Check the gas supply and gas shutoff valves.
	B. Loose wires to the valve.	Check control compartment for any obvious loose wiring (call a service technician if required).
	C. Loose wires to ignition module.	Check control compartment for any obvious loose wiring (call a service technician if required).
	D. Air in the gas line.	Call a service technician.
3. The main Burner comes on, but then goes out.	**A.** Gas is not reaching the fireplace.	Check the gas supply and gas shutoff valves.
	B. Loose wires to valve or ignition module.	Check control compartment for any obvious loose wiring (call a service technician, if required).
	C. Pilot flame is not engulfing the sensor.	Call a service technician.
	D. Obstructed vent system.	Call a service technician.
4. Soot is present on logs and glass.	**A.** Excessive flame impingement on logs.	Check for proper log placement.
	B. Improper air shutter opening.	Open the air shutter by pulling on the air shutter adjustment lever.

REPLACEMENT PARTS LIST

Contact an Authorized Lennox Hearth Products dealer to obtain any of these parts.
Never use substitute materials. Use of non-approved parts can result in poor performance and safety hazards.

Item No.*	Description	LSM40ST	
		Cat. No.	Qty.
1	a. Ceramic Panel Kit, Architectural Stone b. Ceramic Panel Kit, Black Rustic c. Ceramic Panel Kit, Buff Herringbone d. Ceramic Panel Kit, Buff Rustic e. Ceramic Panel Kit, Venetian Tile f. Porcelain Panel Kit, Black	H7946 H8291 H7943 H7942 H7947 H7948	1 1 1 1 1 1
2	Modesty Panel (603936-01)	H8324	3
3	Log Set	H7994	1
4	Enclosure, Glass Door	H2281	2
5	Spring Latch Assembly	H2274	2
6	Burner Assembly	H7996	1
9	Access Plate	H8013	1
10	Gasket, Access Plate	H8012	1
11	Gas Line Tubing	H8001	2
12	Connector, Male	H4094	2
13	Orifice, Natural Gas	H8002	2
13	Orifice, Propane Gas	H8003	2
14	Bag of Embers (rockwool)	H8312	1
15	Grate Assembly	H7998	1
16	On/Off Rocker Switch	80L41	1
17	Gas Line, Flexible Connection	93L32	1
18	Modesty Panel, Right Side	H3371	1
19	Bag of Volcanic Stone (lava rock)	80L42	1
21	Gas Line (from valve to T-fitting)	H7997	1
--	Mesh Pull Screen	H1427	4
--	Screen Rod	H2278	2

*Item numbers correspond to "Replacement Parts Illustration," ***next page***.

Gas Controls - SIT Electronic					
Item No.	Description	Natural Gas		Propane Gas	
		Part No.	Qty.	Part No.	Qty.
22	Gas Valve	H7270	1	H7271	1
23	Pilot Assembly	H7268	1	H7269	1
24	DFC Ignition Board	H7272	1	H7272	1
25	DFC Wire Harness	H8007	1	H8007	1
26	Receiver Kit	H7277	1	H7277	1
27	Receiver Cable Harness	H8008	1	H8008	1
28	AC/DC Power Adaptor	H8006	1	H8006	1
29	Transmitter Kit	H7275	1	H7275	1
30	Ground Wire	H7278	1	H7278	1
31	Spark Electrode (without cable)	H7856	1	H7856	1
32	Sense Electrode (without cable)	H7858	1	H7858	1
33	Cable, Pilot Spark Electrode	H7857	1	H7857	1
34	Cable, Pilot Sense Electrode	H7859	1	H7859	1

⚠ WARNING

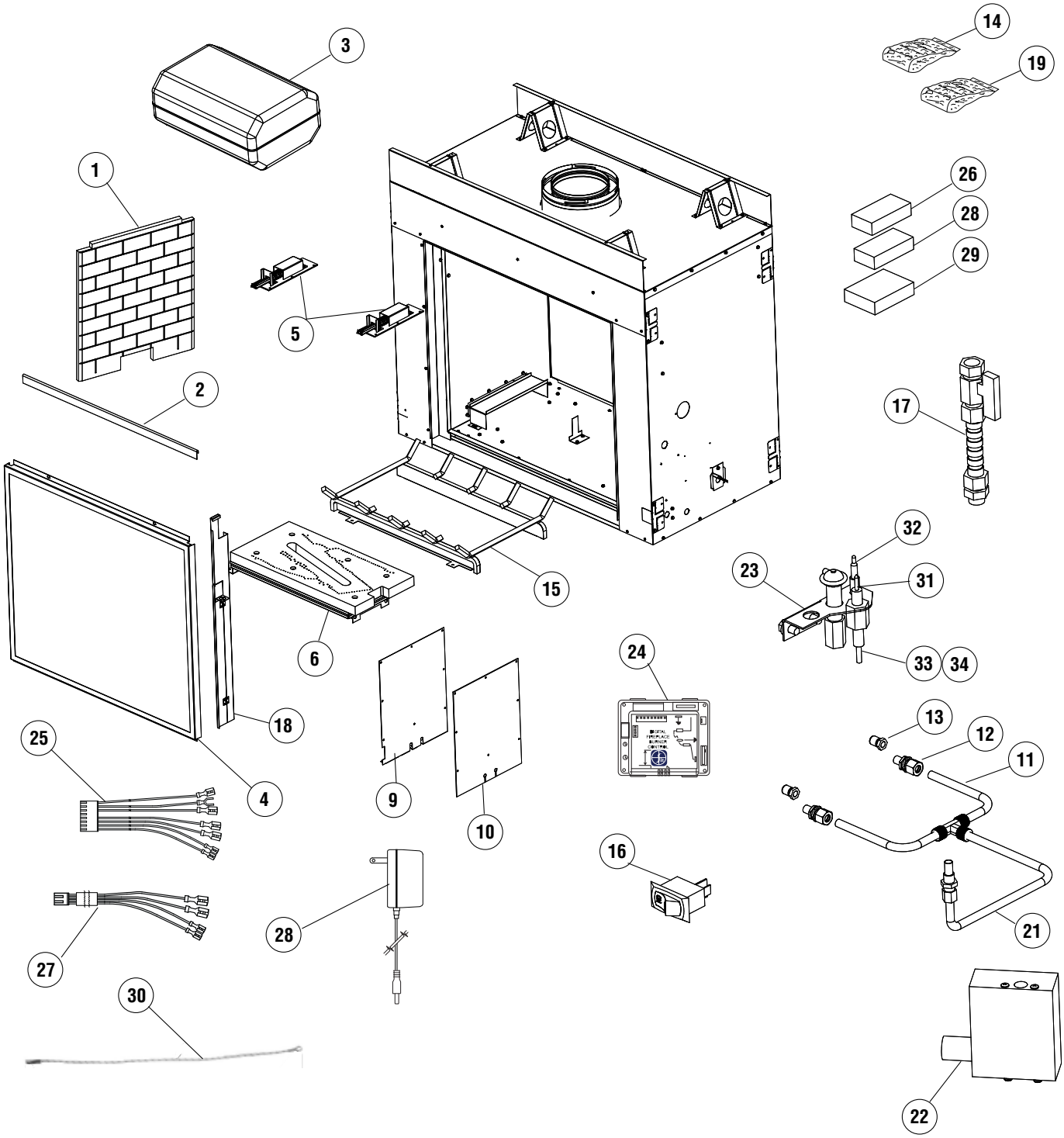
Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

⚠ AVERTISSEMENT

Risque de dommages ou de blessures si les pièces ne sont pas installées conformément à ces schémas et ou si des pièces autres que celles spécifiquement approuvées avec cet appareil sont utilisées.

REPLACEMENT PARTS ILLUSTRATION

Circled numbers correspond to “Replacement Parts List” on ***previous page***.



NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

Notes

Lennox Hearth Products reserves the right to make changes at any time, without notice, in design, materials, specifications, and prices, and also to discontinue colors, styles, and products. Consult your local distributor for fireplace code information.

LENNOX®
HEARTH PRODUCTS

Printed in U.S.A. © 2011 Lennox Hearth Products

P/N 506025-05 Rev. C 05/2011

1508 Elm Hill Pike, Suite 108 • Nashville, TN 37210